



Environmental Security in Botswana

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The continent of Africa is important to U.S. national security interests. Long known for its influence over critical choke points and sea lines of communication, Africa is increasingly known as a land of vast stretches of under-governed spaces, burgeoning terrorist groups, world-class deposits of strategic minerals and petroleum, and the continent most affected by climate change. It is also known for high population growth rates and troubled governments struggling to maintain legitimacy. Many of the challenges to these governments originate with environmental change and a resource base eroded by high population growth rates, bad governmental policy, and environmental degradation. To maintain legitimacy, and preserve political stability, governments must satisfy demands placed on the political system by the population. In Africa, state security increasingly depends upon human security. One country in southern Africa that has succeeded in addressing this paradigm with a whole of government concept is dry and landlocked Botswana.

Regional Security in Africa increasingly turns on human security. To get an inkling, one need only refer to any failed state index, which consists of focus areas such as Demographic Pressures, Refugees/Internal Displaced Persons, Group Grievances, Human Flight, Uneven Development, Economic Decline, Delegitimization of the State, Public Services, Human Rights, Security Apparatus, Factionalized Elites and External Intervention.¹ Nowhere is state and regional security more of a concern than on the continent of Africa where, according to the 2011 Foreign Policy Failed State Index, seven countries rank in the top 10 and comprise 15 of the top 20 most at risk states. Many of these variables are underpinned by failed efforts to address environmental issues. Another indicator of regional instability is that seven of the 16 active United Nations peacekeeping mission are located in Africa. However, while adverse conditions exist there are success stories, and the Southern African country of Botswana is a prime example of how a “whole of Government approach to security challenges that include the military may be successful.”

The geography of the Southern African region is primarily composed of dry plateau country with a combination of rich arable land, desert (Kalahari and Namib), and savannah. Rich in natural resources particularly mineral deposits such as chromium, platinum and copper as well as petroleum, its agricultural potential rivals its mineral wealth, and stands second only to the mining industry as a means of livelihood. (A non-inclusive list of agricultural commodities includes coffee, wine vineyards, apples, citrus groves, bananas, and pineapples).

Also tied to regional security and key to the area is the population and its many ethnic groups and their varied backgrounds, some 15 major groups to include Afrikaner, Bushmen, Ambo, Bemba, Herero, Himba, Makua, Ndebele (North and South), Shona, Swazi, Venda, Xhosa and Zulu. As with other African regions, a mix of ethnic groups is key to differences in political goals and objectives and central to regional stability.

Although Southern Africa shows great promise and is one of the most successful regions on the continent, it has yet to realize its true potential. Key issues that have systemically plagued the region are high rates of poverty, food and water insecurity, lack of good governance, inter and intra-state violence, and limited access to adequate health care and the associated risks to a plethora of deadly and debilitating diseases.

The Cooperative for Assistance and Relief Everywhere (CARE) estimates that 16 million inhabitants in the regional countries of Angola, Zimbabwe, Lesotho, Malawi, Mozambique and Zambia are at risk of starvation. The increased in population growth combined with changing precipitation patterns, causing both extremes floods and, most recently, drought, are the chief causes of starvation. For example, between January and April of 2011, north central Namibia has suffered their worst ever regional

1. Foreign Policy.com, *The Failed State Index 2011, Post Cards From Hell, Images From the World's Most Failed States*, <http://www.foreignpolicy.com/failedstates> (accessed September 2011)

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flooding killing approximately 65 people, displacing 60,000 and causing upwards of US\$600,000 in damage to infrastructure, and crops while causing an increase in waterborne diseases such as malaria.

In resource rich South Africa, where mining is the major foreign exchange earning industry, an influx of 40 million tons of heavy metal byproducts is finding its way into the local water table in several regions of the country making untreated mine water the number one threat to the water-scarce country.² As one of the most prosperous of the region, South Africa has also been at the center of xenophobic violence against immigrants fleeing drought from nations such as Zimbabwe.

Health issues both manmade and natural are prevalent in the region where the problem of HIV/AIDS is more acute than in any other region of the world. Estimates suggest that in at least six Southern African nations one fifth of the adult population is infected with the disease and in Botswana and Swaziland nearly one in every two adults are infected.³

Additionally, due to the high degree of poverty, poor sanitation conditions, standing water, and lack of clean drinking water, other diseases, particularly water-borne diseases – including bacterial diarrhea, hepatitis A, typhoid fever, malaria and dysentery – plague the Southern African region. For example, since 1991, dysentery epidemics were experienced in Angola, Burundi, the Democratic Republic of the Congo, Malawi, Mozambique, Tanzania, and Zambia. Second only to the HIV/AIDS epidemic, one of the most deadly diseases in the region is the various forms of malaria. Estimates indicate that each year over one million people die of malaria, most under five years of age, and upwards of 90% of the fatalities occur in Sub-Saharan Africa. Regional areas most at risk include Kenya, Tanzania, Malawi, Mozambique, Zambia, Zimbabwe and the northern regions of Botswana and Namibia.⁴

Regional violence has also played a pivotal role in regional instability in particular from the 1960s to the 1990s while nations gained independence from European colonizers and experienced the “growing pains” of self governance. One of the most notable conflicts occurred from 1961-1974 when Angola struggled in a war for independence from Portugal, and from 1975-2002 was embroiled in a civil war which thoroughly crippled the nation’s economy. At the conclusion of the war for independence, several local factions emerged, namely the People’s Movement for the Liberation of Angola (MPLA) and the National Union for the Total Independence of Angola (UNITA). During the height of the Cold War, the Angolan civil war captured not only regional but world attention as the USSR, Cuba and Vietnam backed the MPLA, while South Africa and the United States supported UNITA. After almost 30 years of conflict, Angola is finally beginning to rebuild its war torn nation and shattered economy.

During the same period, the Mozambican Civil War of 1977-92 contributed to Southern Africa’s regional instability not only in Mozambique itself but throughout the region as it became a haven for Communist backed resistance movements in both South Africa (The African National Congress) and Rhodesia/Zimbabwe (Zimbabwe African National Union-Patriotic Front).

In another region, after gaining independence from the Portuguese in 1975, the ruling party in Angola, the Front for the Liberation of Mozambique (FRELIMO), quickly established a one party system, with assistance from the Soviet Block. In opposition to the FRELIMO movement was the Mozambican National Resistance (RENAMO) backed by the apartheid governments of South Africa and Rhodesia. By 1977 conflict between FRELIMO and RENAMO forces erupted into an all out civil war that engulfed the nation until peace was achieved under the Rome Peace Accords in 1992. Since then Angola has experienced a modicum of stability and is currently rebuilding their war ravaged country.

Arguably, Zimbabwe is a prime example of the compilation of issues and challenges that have plagued the Southern African region. After taking control of Zimbabwe (then called Rhodesia) in 1980 after a protracted civil war from 1964-79, Prime Minister Robert Mugabe showed early signs that he could effectively lead the post-apartheid nation to economic independence. However, hopes of the resurgence of this one time economic powerhouse were dashed as Mugabe and his corrupt Zimbabwe African National Union – Patriotic Front (ZANU-PF) regime quickly centralized power and changed the constitution in 1987. Mugabe declared himself the President and remains in power.

Chief among Mugabe’s questionable decisions was the manipulation of land ownership. Once the “bread basket” of Southern Africa, Rhodesia’s/Zimbabwe’s Land Acquisition Act of 1972 offered a “willing buyer, willing seller” market-based approach to land transfers from white-owned farms to black ownership. But, by 1997 Mugabe’s government-backed compulsory acquisition, led by the Zimbabwe National Liberation War Veteran’s Association, faced resistance. By 2005 Mugabe declared all agricultural land to be state land and forcibly seized the land from nearly 4000 white farmers. His redistribution scheme ruined the large,

2. Oelofse, S.H.H., and P.J. Hobbs, J. Rascher and J.E. Cobbing, The pollution and destruction threat of gold mining waste on the Witwatersrand - A West Rand case study, 2007, CSIR, Natural Resources and the Environment, PO Box 395, Pretoria, South Africa, 0001, www.anthonyturton.com/admin/my_documents/my.../983_SWEMP.pdf (accessed September 2011)

3. USAID, USAID Country Profile; The Southern African Region, 2004, www.usaid.gov/our_work/global_health/aids/.../southernafrica_04.pdf (accessed September 2011)

4. The Safarico, Africa travel made easy, http://www.thesafaricompany.co.za/Malaria_in_Africa.htm (accessed September 2011)

extremely productive farming cooperatives.⁵ On March 22, 2009 *Parade Magazine* rated Mugabe the world's number one worst dictator. He presided over unemployment rate exceeding 85%, an inflation rate at a staggering 1281%, and a health crisis that has resulted in the world's shortest life expectancy rate.⁶

Although the Southern African region has its share of challenges, the regional country of Botswana is considered a success story. With fewer natural resources and landlocked, Botswana has historically been known as a champion of the environment and is steadily making progress towards economic independence chiefly through sound fiscal decisions, diversification of its economy, and attacking government corruption. In contrast to other nations of the region, and for that matter the continent, Botswana's population is primarily from one ethnic group, the Tswana tribe, which is advantageous given the many ethnic groups in many African countries. But their progress has not been without challenges.

The fragile ecology of the desert state makes Botswana's natural resource base vulnerable and reduces its resilience to abrupt change. In Botswana, where approximately 77% of the land is covered by the Kalahari Desert or arid savannah, environmental security concerns are vital to state survival. Upstream diversions of river water, poaching of wildlife or uncontrolled immigration can destroy ecosystems that would take a generation to recover. For this reason the president of Botswana has made environmental security a national priority and is utilizing a whole of government approach to prevent further environmental degradation. Particularly important to this effort is the role of the Botswana Defense Force (BDF).

Since gaining independence from Great Britain in 1966, Botswana has been proactive on attaining environmental self-sufficiency chiefly by creating economic diversity and developing the tourist industry. In northern Botswana, the tourist industry accounts for approximately 40% of the employment opportunities. However, by the early to mid 1980s, the large wildlife population, particularly of the Okavango Delta region, began to experience large scale, organized cross-border poaching which overwhelmed the Botswana Department of Wildlife and National Parks. By 1987 the situation had deteriorated to the point that the then deputy commander of the BDF, Major General Ian Khama, volunteered the BDF to assist, an offer that was gratefully accepted.

Executing its first mission in October, 1987 the BDF immediately made positive impacts and dramatically reduced poaching especially along the Zimbabwe and South African borders. A preponderance of the poachers apprehended were foreign nationals, most coming from Zimbabwe. While illegal poaching activity took a heavy toll on the wildlife by the 1990s, the BDF had expanded its mission set to include interdicting cross-border cattle rustling, organized crime, and car theft. In addition to interdicting these illegal activities, the BDF has also been instrumental in disease control, in particular hoof and mouth disease in addition to other human communicable diseases.

The tradition of using the BDF for anti-poaching and anti-criminal missions has been ably carried on by the once commander of the BDF and now President of Botswana, Khama Ian Khama, who was elected to the post in 2008. While the government has been criticized for its continued use of the BDF in such a fashion, there is overall popular support, which provides several benefits for not only the national economic situation but to the BDF itself. First, an effective anti-poaching program provides valuable assistance to improve Botswana's tourist trade. The BDF manages Botswana's most precious natural resources, the wildlife, and safeguards the tourist trade, which is second behind agriculture as an employer. Next, the BDF is able to hone their skills by practicing tactics, techniques and procedures similar to traditional missions using small unit tactics often associated with United Nations Chapter VII Peace Enforcement operations. Lastly, as the BDF teams with the Botswana Department of Wildlife and National Parks, this cooperative effort serves as a valuable interoperability tool in a whole of government approach to the problem.

The value of using the BDF has also proven itself in the focus area of water management. In addition to water management on military installations such as the Bephatshwa Airbase and training soldiers on water usage, the BDF Corps of Engineers (COE), is an active participant in seminars providing expertise on water management to the private sector.



The Botswana Defence Force, assisted by helicopters from the Zimbabwe Air Force, positions itself just before being attacked by dozens of well armed poachers in late June, 2010.

5. Thebe, Vusilizwe, *Journal Of Sustainable Development In Africa* (Volume 13, No.2, 2011), "The Politics of Hunger: Resettled Households and the Future of Commercial Agriculture in Post-2000 Zimbabwe," [www.jsd-africa.com/.../The%20Politics%20of%20Hunger%20\(Thebe\).pdf](http://www.jsd-africa.com/.../The%20Politics%20of%20Hunger%20(Thebe).pdf) (accessed September 2011)

6. David Wallechinsky, "The World's 10 Worst Dictators," *Parade Magazine*, March 22, 2009, www.parade.com/dictators/2009/the-worlds-10-worst-dictators.html (accessed April 6, 2009)

The focus of these seminars has included conservation of ground water, collection of rainwater and overall water utilization.

As part of their water management mission on military installations, the COE administers the entire process from conducting water surveys, to digging wells, to providing water purification once wells are established. Additionally, as it becomes available, the COE provides potable water to the local population. For example, the Bephatshwa Airbase only uses approximately 25% of the available potable water it produces. The rest is pumped to the nearby villages of Molepolole and Thamaga. In other villages where acute water issues occur either from floods or a shortage the BDF provides water purifying machines and water trailers in support of civil authorities.



**Botswana Defence Force during anti-poaching operations
Summer 2010.**

Botswana's leadership demonstrates that a cooperative whole of government approach to complex environmental challenge can be quite successful and one worth further investigation by other nations in the region. Historically, African militaries have not had the best reputation as a tool for aiding civil authorities or securing national security interests. Yet, and chiefly due to the innovative leadership of Khama Ian Khama, Botswana has proven that utilizing the military is an effective tool in solving environmental related issues. Botswana's success should provide an example that, since national militaries are often better resourced than other government agencies and have an established chain of command, they are well suited to support civil authorities with environmental challenges ranging from natural and manmade disasters, to water security to protecting the wildlife, which in Africa is a major source of income.

Emulating the Botswana example, building capacity by expanding Southern African militaries in support of civil authorities would be advantageous for several reasons. First, routinely using the military in support of civil authorities would enhance the local population's trust, thereby enhancing the central government legitimacy which is lacking across the region. Second, Southern African regional stability would enhance the U.S. national security interests given the importance of the region not only as a natural resource provider and trading partner but because of their strategic location in close proximity to world shipping lanes.

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